April 20, 2001

Mr. Ronald Collins
Delphi Energy & Engine Management Systems
2900 S. Scatterfield Road
Anderson, Indiana 46013

Re: 095-14015
Fourth Minor Source Modification to:
Part 70 permit No.: T095-6388-00016

Dear Mr. Collins:

Delphi Energy & Engine Management Systems was issued Part 70 operating permit T095-6388-00016 on August 31, 1999 for an automotive parts manufacturing operation. An application to modify the source was received on February 16, 2001. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(a) One (1) trickle varnish line for stators, identified as S15m, consisting of the following three (3) processes:
1. pre-heating, which is done by electric induction pre-heating oven;
2. trickle varnish coating; and
3. curing, which is done by electric infrared heating oven.

(b) One (1) trickle varnish line for rotors, identified as R15, consisting of the following three (3) processes:
1. preheating, which is done by electric induction heating oven;
2. trickle varnish coating; and
3. curing, which is done by electric infrared heating oven.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) and 2-7-12(b)(6), the emission units constructed under this approval may be placed into operation immediately after submission of the associated Minor Permit Modification application.

The proposed operating conditions applicable to these emission units are attached to this Source Modification approval. These proposed operating conditions shall be incorporated into the Part 70 operating permit as a minor permit modification in accordance with 326 IAC 2-7-12(b).

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for Aida De Guzman or extension (3-4972), or dial (317) 233-4972.

Sincerely,

Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
APD
cc: File - Madison County
U.S. EPA, Region V
Madison County Health Department
Anderson Office of Air Management
Air Compliance Section Inspector - Jim Thorpe
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

Indiana Department of Environmental Management
Office of Air Management
and Anderson Office of Air Management

Technical Support Document (TSD) for the Fourth Part 70 Minor Source Modification

Source Background and Description

Source Name:	Delphi Energy & Engine Management Systems
Source Location:	2900 South Scatterfield Road, Anderson, IN 46011
County:	Madison
SIC Code:	3714
Operation Permit No.:	T 095-6388-00016
Operation Permit Issuance Date:	August 31, 1999
Fourth Minor Source Modification No.:	095-14015-00016
Permit Reviewer:	Aida De Guzman

The Office of Air Management (OAM) has reviewed a modification application from Delphi Energy & Engine Management Systems relating to the construction of the following emission units:

(a) One (1) trickle varnish line for stators, identified as S15m, consisting of the following three (3) processes:
1. pre-heating, which is done by electric induction pre-heating oven;
2. trickle varnish coating; and
3. curing, which is done by electric infrared heating oven.

(b) One (1) trickle varnish line for rotors, identified as R15, consisting of the following three (3) processes:
1. preheating, which is done by electric induction heating oven;
2. trickle varnish coating; and
3. curing, which is done by electric infrared heating oven.

History

On February 16, 2001, Delphi Energy & Engine Management Systems submitted an application to the OAM requesting to add two (2) new trickle varnish lines to their existing plant. Delphi Energy & Engine Management Systems was issued a Part 70 permit on August 31, 1999. Since then the following approvals were issued to the source:

1. First Minor Source Modification No.: 095-11322 - issued on November

18, 1999;
2. First Minor Permit Modification No.: 095-11377 - issued on November 18, 1999;
3. Second Minor Source Modification No.: 095-11938 - issued on April 3, 2000;
4. Second Minor Permit Modification No.: 095-11994 - issued on April 25, 2000;
5. Third Minor Source Modification No.: 095-12180 - issued on May 20, 2000;
6. First Administrative Amendment No.: 095-12368 - issued on July 18, 2000;
7. Third Minor Permit Modification No.: 095-12242 - issued on July 28, 2000; and
8. First Significant Permit Modification No.: 095-12800 - issued on January 16, 2001.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S15	Stator varnish oven	30	1.25	3,000	100
R15	Rotor varnish oven	30	1.25	3,000	100

Recommendation

The staff recommends to the Commissioner that the Part 70 Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 19, 2001, and additional information was received on March 7, 2001.

Emission Calculations

The emission factor (1.2 lb/gal) utilized in the calculation was established through a modified EPA test Method 24 done on this specific coating (Pedigree No. 9183 Star Wars Polyester Resin) by P.D. George, the resin manufacturer. The Compliance Data Section has reviewed the data from the tests and approved the tests done to verify the emission factor.

(a) Preheating and Curing Operations: There are no emissions generated from these electric fired operations.

(b) Trickle Varnish Emissions: Rotors and Stators are coated with Pedigree #9183.

Facility/Operation	Duration in Coating one Part (part/second)	Usage (gram/part)	Emission Factor, Ef (lb VOC/9.124 lb varnish	VOC Emissions (tons/year)

Rotors Coating	1 part/18 sec	12.0	1.2	3.0
Stators Coating	2 parts/38 sec	32.0	1.2	7.7
TOTAL				10.7

Note: Emission Factor = 1.2 lb VOC/gal of varnish resin
1 gallons of varnish resin = 9.124 pounds

Methodology:
VOC Emissions, tons/yr = part/sec * usage, gr/part * 1lb/454 gr * 3600 sec/hr * 8760 hrs/yr * Ef, 1.2 lb/9.124 lb varnish * ton/2000 lbs

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.00
PM-10	0.00
SO_2	0.00
VOC	10.7
CO	0.00
NO_x	0.00

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(d), because the VOC potential to emit is greater than ten (10) tons per year but less than twenty-five (25) tons per year.

County Attainment Status

The source is located in Madison County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Madison County has been designated as attainment or unclassifiable for ozone. Therefore, VOC

and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Madison County has been classified as attainment or unclassifiable for CO, SO_2 and PM_{10}. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity):

Pollutant	Emissions (tons/year)
PM	4.83
PM-10	7.16
SO_2	0.569
VOC	288.6
CO	87.44
NOx	86.93

(a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

(b) These emissions are based upon the Part 70 permit issued on August 31, 1999 the source's potential to emit summary from the annual inspection on February 18, 1999 and the First Minor Source Modification issued on November 18, 1999.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Two (2) varnish lines	0.00	0.00	0.00	10.7	0.00	0.00	0.00

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability - Two (2) Varnish Trickle Lines

(a) 326 IAC 2-4.1 (New Source Toxics Rule) is not applicable to the two (2) trickle varnish lines because there are no HAPs emitted by these processes.

(b) 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(1) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60,

Appendix A. Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

(c) 326 IAC 6-3-2 (Process Operations) does not apply to the trickle varnish lines because the application method has a 100 percent transfer efficiency, therefore there are no PM emissions from the trickle varnish lines.

(d) 326 IAC 6-2 (Sources of Indirect Heating)
The one (1) induction pre-heating oven, and one (1) infrared curing oven are not subject to 326 IAC 6-2 because they are electrically fired nor they are sources of indirect heating.

(e) 326 IAC 8-2-9 (Miscellaneous Metal Coating):
Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the two (2) trickle varnish lines shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.

Based on the information submitted by the source, the two (2) trickle varnish lines are in compliance with this requirement. The modified EPA test Method 24 done by P. D. George (manufacturer) shows that the varnish resin has less than 3.5 pounds of VOC per gallon of the coating, less water.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this

occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed **Fourth Part 70 Minor Source Modification No. 095-14015-00016.**